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EXAMINER	
THANGAVELU, KANDASAMY	

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/049,793	HAYASHI ET AL.	
	Examiner	Art Unit	
	Kandasamy Thangavelu	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,9-17,19 and 20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-17,19 and 20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 February 2002* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *January 23, 2006*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is in response to the Applicant's Response mailed on March 14, 2006. Claims 1, 2, 4, 6, 7, 11-17 and 19-20 were amended. Claims 8 and 18 were canceled. Claims 1-7, 9-17 and 19-20 of the application are pending. This office action is made non-final.

Information Disclosure Statement

2. Acknowledgment is made of the information disclosure statements filed on January 23, 2006 together with lists of patents. The patents have been considered.

Drawings

3. The drawings submitted on February 13, 2002 are objected to:

The figures are numbered incorrect. Therefore, the brief and detailed descriptions of the drawings in the specification are all incorrect. The errors were made by numbering Figs. 29 and 30, what should have been Figs. 1 and 2. The error can be corrected by numbering Figs. 29 and 30, as Figs. 1 and 2. Then current Figs. 1 to 28 should be renumbered as Figs 3 to 30. Then the description in the specification will

agree with the figures. Substitute drawings with correct figure numbers are required for further consideration of the application.

Specification

4. The disclosure is objected to because of the following informalities:

Page 2, Line 19, "three-dimensional content of has been proposed" appears to be incorrect and it appears that it should be "three-dimensional content has been proposed".

Page 6, Line 26, "modifucation" appears to be incorrect and it appears that it should be "modification".

Page 7, Lines 25-26, "first information server 4a, second information server 4b" appears to be incorrect and it appears that it should be "first information server 4a and second information server 4b".

Page 8, Lines 4-5, "servers to register in the property information master storage" appears to be incorrect and it appears that it should be "servers to register property information in the property information master storage".

Page 14, Line 10, "taken in" appears to be incorrect and it appears that it should be "view".

Page 15, Lines 9-10, "content as described are generated" appears to be incorrect and it appears that it should be "content as described is generated".

Page 18, Line 25, "server 2" appears to be incorrect and it appears that it should be "server 1".

Page 20, Line 28, "information provider server " appears to be incorrect and it appears that it should be "information delivery server".

Page 21, Line 13, "server 2" appears to be incorrect and it appears that it should be "server 1".

Page 22, Line 3, "server 2" appears to be incorrect and it appears that it should be "server 1".

Page 22, Line 5, "perform" appears to be incorrect and it appears that it should be "performs".

Page 24, Line 27, "Fig. 20" appears to be incorrect and it appears that it should be "Fig. 21".

Page 28, Line 25, "selecting functions among from " appears to be incorrect and it appears that it should be "selecting functions from".

Appropriate corrections are required.

Claim Objections

5. The following is a quotation of 37 C.F.R § 1.75 (d)(1):

> The claim or claims must conform to the invention as set forth in the remainder of the specification and terms and phrases in the claims must find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description.

6. Claims 1 and 11 are objected to because of the following informalities:

Amended Claim 1, Lines 7-8 state "a client terminal which is configured to receive and display said information through the communication network". This appears to be incorrect as it is not possible to display said information through the communication network; a display device is required to display said information.

Amended Claim 11, Lines 6-7 state "a step of displaying said information through the communication network". This appears to be incorrect as it is not possible to display said information through the communication network; a display device is required to display said information.

Appropriate corrections are required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. §112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-7, 9-17 and 19-20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to

reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

8.1 Claim 1 states in part, "said skinning data calculation means makes it possible to perform rendering by calculating weight factors with coordinates given to said bone component corresponding to respective coordinates given to said skin component in order to determine a profile of said skin component during reproduction of said three-dimensional content". The specification does not describe anywhere what these weight factors are and how they are computed for different displays from the information and coordinates of the bone component and skin component. The specification also does not describe how the client terminal generates the profile of the skin component from the coordinates of the bone component and weight factors during reproduction of the three-dimensional content.

8.2 Claim 4 states in part, "a direction of said object(s) provides a hierarchical representation of said information corresponding to the positions of said object(s)". The specification does not describe anywhere how the hierarchical representation of said information corresponding to the positions of said object(s) is converted into a direction of said object(s) and what method or algorithm is used to perform this conversion.

8.3 Claim 11 states in part, "said step of skinning data calculation makes it possible to perform rendering by calculating weight factors with the coordinates as given to said bone component corresponding to respective coordinates as given to said skin component in order to

determine a profile of said skin component during reproducing said three-dimensional content". The specification does not describe anywhere what these weight factors are and how they are computed for different displays from the information and coordinates of the bone component and skin component. The specification also does not describe how the client terminal generates the profile of the skin component from the coordinates of the bone component and weight factors during reproduction of the three-dimensional content.

8.4 Claim 14 states in part, "a direction of said object(s) provides a hierarchical representation of said information corresponding to the positions of said object(s)". The specification does not describe anywhere how the hierarchical representation of said information corresponding to the positions of said object(s) is converted into a direction of said object(s) and what method or algorithm is used to perform this conversion.

Claims rejected but not specifically addressed are rejected because of their dependence on rejected claims.

9.0 Claims 1-7, 9-17 and 19-20 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

9.1 Claim 1 states in part, "said skinning data calculation means makes it possible to perform rendering by calculating weight factors with coordinates given to said bone component corresponding to respective coordinates given to said skin component in order to determine a profile of said skin component during reproduction of said three-dimensional content". The specification does not describe anywhere what these weight factors are and how they are computed for different displays from the information and coordinates of the bone component and skin component. The specification also does not describe how the client terminal generates the profile of the skin component from the coordinates of the bone component and weight factors during reproduction of the three-dimensional content.

9.2 Claim 4 states in part, "a direction of said object(s) provides a hierarchical representation of said information corresponding to the positions of said object(s)". The specification does not describe anywhere how the hierarchical representation of said information corresponding to the positions of said object(s) is converted into a direction of said object(s) and what method or algorithm is used to perform this conversion.

9.3 Claim 11 states in part, "said step of skinning data calculation makes it possible to perform rendering by calculating weight factors with the coordinates as given to said bone component corresponding to respective coordinates as given to said skin component in order to determine a profile of said skin component during reproducing said three-dimensional content". The specification does not describe anywhere what these weight factors are and how they are computed for different displays from the information and coordinates of the bone component and

skin component. The specification also does not describe how the client terminal generates the profile of the skin component from the coordinates of the bone component and weight factors during reproduction of the three-dimensional content.

9.4 Claim 14 states in part, "a direction of said object(s) provides a hierarchical representation of said information corresponding to the positions of said object(s)". The specification does not describe anywhere how the hierarchical representation of said information corresponding to the positions of said object(s) is converted into a direction of said object(s) and what method or algorithm is used to perform this conversion.

Claims rejected but not specifically addressed are rejected because of their dependence on rejected claims.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

11. 1-7, 9-17 and 19-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

11.1 Claim 1 states in part, "said skinning data calculation means **makes it possible to perform** rendering by calculating weight factors with coordinates given to said bone component

corresponding to respective coordinates given to said skin component **in order to determine** a profile of said skin component during reproduction of said three-dimensional content". The use of the terms "makes it possible" and "in order to determine" in the claim language makes the claim vague and indefinite, since it is not clear if the skinning data calculation means performs rendering and if it determines a profile of said skin component.

11.2 Claim 11 states in part, "said step of skinning data calculation **makes it possible** to perform rendering by calculating weight factors with the coordinates as given to said bone component corresponding to respective coordinates as given to said skin component **in order to determine** a profile of said skin component during reproducing said three-dimensional content". The use of the terms "makes it possible" and "in order to determine" in the claim language makes the claim vague and indefinite, since it is not clear if the skinning data calculation step performs rendering and if it determines a profile of said skin component.

Claims rejected but not specifically addressed are rejected because of their dependence on rejected claims.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

13. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

14. Claims 1, 2, 4, 5, 11, 12, 14 and 15 are rejected under 35 U.S.C. § 102(e) as being anticipated by **Hubrecht et al.** (U.S. Patent Application 2003/0117402) in view of **Marshall et al.** (U.S. Patent Application 2003/0020718).

14.1 **Hubrecht et al.** teaches Systems and methods for simulating frames of complex virtual environments. Specifically, as per claim 1, **Hubrecht et al.** teaches an information delivering system for delivering information through a communication network constructed by interconnecting communication lines (Fig. 2; Page 6, Para 0077 and Para 0078); the information delivering system comprising:

an information delivering server which is connected to the communication network (Fig. 2; Page 6, Para 0077 and Para 0078; Page 4, Para 0061; Page 6, Para 0080, Para 0081 and Para 0083; Page 7, Para 0085 and Para 0086) and configured to deliver three-dimensional content provided for presentation of the information (Figs. 25A- 28B; Page 6, Para 0076; Abstract, L1-5; Page 1, Para 0005 and Para 0006); and

a client terminal which is configured to receive and display units of information through the communication network (Page 6, Para 0078, Para 0080, Para 0081 and Para 0083; Page 7, Para 0085 and Para 0086);

wherein the three-dimensional content is generated by creating a three-dimensional virtual space as projected onto a plane (Figs. 18A, 18B and 18C; Page 19, Para 0184 and Para 0185) and arranging an object indicative of the information within the three-dimensional space (Figs. 25A- 28B).

Hubrecht et al. does not expressly teach that when the information delivering server transmits three-dimensional content separately as a skin component which deforms with motion and a bone component which does not deform with motion, the skinning data calculation means makes it possible to perform rendering by calculating weight factors with coordinates given to the bone component corresponding to respective coordinates given to the skin component in order to determine a profile of the skin component during reproduction of the three-dimensional content. **Marshall et al.** teaches that when the information delivering server transmits three-dimensional content separately as a skin component which deforms with motion and a bone component which does not deform with motion (Page 1, Para 0002; Page 1, Para 0008 to Para 0010), the skinning data calculation means makes it possible to perform rendering by calculating weight factors (scale factors) with coordinates given to the bone component corresponding to respective coordinates given to the skin component in order to determine a profile of the skin component during reproduction of the three-dimensional content (Page 1, Para 0002; Page 1, Para 0008 to Para 0010; Page 1, Para 0011). It would have been obvious to one of

ordinary skill in the art at the time of Applicant's invention to modify the information delivering system of **Hubrecht et al.** with the information delivering system of **Marshall et al.** that included when the information delivering server transmitted three-dimensional content separately as a skin component which deformed with motion and a bone component which did not deform with motion, the skinning data calculation means made it possible to perform rendering by calculating weight factors with coordinates given to the bone component corresponding to respective coordinates given to the skin component in order to determine a profile of the skin component during reproduction of the three-dimensional content, because movement of the polygons representing the skin of the 3D model would be tied to the movement of the bones (Page 1, Para 0002, L3-5); and the polygons representing the skin would deform around the bone that the polygons were associated with (Page 1, Para 0010, L6-7).

Per Claim 2: **Hubrecht et al.** teaches that a position of the object(s) is associated with the information (Figs. 25A- 28B;Page 7, Para 0086 and Para 0091).

Per Claim 4: **Hubrecht et al.** teaches that a direction of the object(s) provides a hierarchical representation of the information corresponding to the positions of the object(s) (Page 8, Para 0096 and Para 0098).

Per Claim 5: **Hubrecht et al.** teaches a content generation means which is configured to generate the three dimensional content (Page 6, Para 0078, Para 0080 and Para 0081; Page 7, Para 0085); and

a content transfer means which is configured to store the three-dimensional content as generated in the information delivering server (Page 6, Para 0080 and Para 0083; Page 7, Para 0086).

14.2 As per Claims 11, 12, 14 and 15, these are rejected based on the same reasoning as Claims 1, 2, 4 and 5, supra. Claims 11, 12, 14 and 15 are method claims reciting the same limitations as Claims 1, 2, 4 and 5, as taught throughout by **Hubrecht et al.** and **Marshall et al.**

15. Claims 3 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hubrecht et al.** (U.S. Patent Application 2003/0117402) in view of **Marshall et al.** (U.S. Patent Application 2003/0020718) and further in view of **Oka** (U.S. Patent 5,912,671).

15.1 As per claim 3, **Hubrecht et al.** and **Marshall et al.** teach the information delivering system of claim 1. **Hubrecht et al.** and **Marshall et al.** do not expressly teach that the object(s) is a polyhedron each of whose facets is used to display a unit of the information in order that the respective units of the information are shown by turning the polyhedron. **Oka** teaches that the object(s) is a polyhedron each of whose facets is used to display a unit of the information in order that the respective units of the information are shown by turning the polyhedron (CL1, L26-41). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the information delivering system of **Hubrecht et al.** and **Marshall et al.** with the information delivering system of **Oka** that included the object(s) being a polyhedron each of whose facets was used to display a unit of the information in order that the respective

units of the information were shown by turning the polyhedron because that would allow storing a plurality three-dimensional images depicting the character viewed from different directions to be stored on different face of the polyhedron and displayed (CL1, L26-32).

15.2 As per Claim 13, it is rejected based on the same reasoning as Claim 3, supra. Claim 13 is a method claim reciting the same limitations as Claim 3, as taught throughout by **Hubrecht et al., Marshall et al.** and **Oka.**

16. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hubrecht et al.** (U.S. Patent Application 2003/0117402) in view of **Marshall et al.** (U.S. Patent Application 2003/0020718) and further in view of **O'Rourke et al.** (U.S. Patent Application 2002/0138607).

16.1 As per claim 6, **Hubrecht et al.** and **Marshall et al.** teach the information delivering system of claim 1. **Hubrecht et al.** teaches a property information storage device which is configured to store the property information of the three-dimensional content (Page 1, Para 0005);

a property information management means which is configured to control the management of the property information stored in the property information storage device (Page 1, Para 0005); and

a content providing means which is configured to provide the three-dimensional content for customers (Page 6, Para 0080, Para 0083; Page 7, Para 0085 and Para 0086).

Hubrecht et al. does not expressly teach a skeleton storage device which is configured to store the content of invariable components among the three-dimensional content; a skeleton registration means which is configured to store the content of invariable components in the skeleton storage device; and a content providing means which is configured to provide the three-dimensional content for customers with reference to the skeleton storage device. **Marshall et al.** teaches a skeleton storage device which is configured to store the content of invariable components among the three-dimensional content; a skeleton registration means which is configured to store the content of invariable components in the skeleton storage device; and a content providing means which is configured to provide the three-dimensional content for customers with reference to the skeleton storage device (Page 1, Para 0009; Page 2, Para 0023, L1-4; Page 2, Para 0024; page 1, Para 0010, L9-11).

Hubrecht et al. and **Marshall et al.** do not expressly teach a parameter storage device which is configured to store parameters which are externally designated; a parameter setting means which is configured to setup the parameters; a parameter registration means which is configured to register the parameters in the parameter storage device; and a content providing means which is configured to provide the three-dimensional content for customers with reference to the parameter storage device. **O'Rourke et al.** teaches a parameter storage device which is configured to store parameters which are externally designated; a parameter setting means which is configured to setup the parameters; a parameter registration means which is configured to register the parameters in the parameter storage device; and a content providing means which is configured to provide the three-dimensional content for customers with reference to the

parameter storage device (Page 7, Para 0107 to Para 0115; Page 8, Para 0131). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the information delivering system of **Hubrecht et al.** and **Marshall et al.** with the information delivering system of **O'Rourke et al.** that included a parameter storage device which was configured to store parameters which were externally designated; a parameter setting means which was configured to setup the parameters; a parameter registration means which was configured to register the parameters in the parameter storage device; and a content providing means which was configured to provide the three-dimensional content for customers with reference to the parameter storage device because that would allow a user to create and configure image frames within 3-D multi-user environment using the various parameters to define the images in the frame (Page 7, Para 0107 to Para 0115; Page 8, Para 0131).

16.2 As per Claim 16, it is rejected based on the same reasoning as Claim 6, supra. Claim 16 is a method claim reciting the same limitations as Claim 6, as taught throughout by **Hubrecht et al., Marshall et al.** and **O'Rourke et al.**

17. Claims 7 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hubrecht et al.** (U.S. Patent Application 2003/0117402) in view of **Marshall et al.** (U.S. Patent Application 2003/0020718) and further in view of **Lengyel** (U.S. Patent 6,614,428).

17.1 As per claim 7, **Hubrecht et al.** and **Marshall et al.** teach the information delivering system of claim 1. **Hubrecht et al.** does not expressly teach that the information delivering

server transmits three-dimensional content including a start position and an end position of a moving object and a time as designated for moving from the start position to the end position. **Marshall et al.** teaches the information delivering server transmits three-dimensional content including a start position and an end position of a moving object and a time as designated for moving from the start position to the end position (Page 1, Para 0011; Page 2, Para 0023, L1-11).

Hubrecht et al. and **Marshall et al.** do not expressly teach that the client terminal further comprises an interpolation means and wherein, the interpolation means perform interpolation of images of the moving object by defining a plurality of frames with a predetermined time interval between the start position and the end position and dividing the distance between the start position and the end position by the number of the frames during the reproduction of the three-dimensional content. **Lengyel** teaches that the client terminal further comprises an interpolation means (CL5, L38-48) and wherein the interpolation means perform interpolation of images of the moving object by defining a plurality of frames with a predetermined time interval between the start position and the end position and dividing the distance between the start position and the end position by the number of the frames during the reproduction of the three-dimensional content (CL2, L50-61; CL5, L9-10; CL5, L18-28; CL5, L38-48). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the information delivering system of **Hubrecht et al.** and **Marshall et al.** with the information delivering system of **Lengyel** that included the client terminal further comprising an interpolation means and wherein the interpolation means performed interpolation of images of the moving object by defining a plurality of frames with a predetermined time interval between the start position and the end position and dividing the distance between the start position and the

end position by the number of the frames during the reproduction of the three-dimensional content because time and geometry interpolation components would be typically implemented in graphics rendering hardware in the clients (CL5, L47-48); it would allow reducing the transmission bandwidth between the server and the clients on the network (CL3, L15-16); and in the graphics rendering process the 3D model would be rendered into an output image at discrete times and most likely at a periodic rate such as the frame rate (CL5, L22-24).

17.2 As per Claim 17, it is rejected based on the same reasoning as Claim 7, supra. Claim 17 is a method claim reciting the same limitations as Claim 7, as taught throughout by **Hubrecht et al., Marshall et al.** and **Lengyel.**

18. Claims 9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hubrecht et al.** (U.S. Patent Application 2003/0117402) in view of **Marshall et al.** (U.S. Patent Application 2003/0020718) and further in view of **Matsuda** (U.S. Patent Application 2001/0055039).

18.1 As per claim 9, **Hubrecht et al.** and **Marshall et al.** teach the information delivering system of claim 1. **Hubrecht et al.** and **Marshall et al.** do not expressly teach that the client terminal further comprises an external file combination means which is configured to combine an external file as stored in the client terminal when the information delivering server transmits three-dimensional content including a request for a linkage to the external file. **Matsuda** teaches that the client terminal further comprises an external file combination means which is configured

to combine an external file as stored in the client terminal when the information delivering server transmits three-dimensional content including a request for a linkage to the external file (Fig. 1, Fig. 2, Fig. 23; Page 1, Para 0001, Para 0005, Para 0014; Abstract). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the information delivering system of **Hubrecht et al.** and **Marshall et al.** with the information delivering system of **Matsuda** that included the client terminal further comprising an external file combination means which was configured to combine an external file as stored in the client terminal when the information delivering server transmitted three-dimensional content including a request for a linkage to the external file because three-dimensional graphics data could be stored in a server and transferred on demand by a client terminal and displayed using a browser on the client terminal (Page 1, Para 0005); and some of the files might be stored on the hard disc of a client and read from a selected file and displayed by the client at its terminal (Page 1, Para 0014).

18.2 As per Claim 19, it is rejected based on the same reasoning as Claim 9, supra. Claim 19 is a method claim reciting the same limitations as Claim 9, as taught throughout by **Hubrecht et al., Marshall et al.** and **Matsuda.**

19. Claims 10 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Hubrecht et al.** (U.S. Patent Application 2003/0117402) in view of **Marshall et al.** (U.S. Patent Application 2003/0020718) and further in view of **Nikolskiy et al.** (U.S. Patent Application 2002/0055800).

19.1 As per claim 10, **Hubrecht et al.** and **Marshall et al.** teach the information delivering system of claim 1. **Hubrecht et al.** and **Marshall et al.** do not expressly teach that three-dimensional content is composed of a plurality of project files and wherein the information delivering server further comprises a download management means which is configured to transmit the project file corresponding to a scene as requested from the client terminal for reproducing the scene. **Nikolskiy et al.** teaches that three-dimensional content is composed of a plurality of project files and wherein the information delivering server further comprises a download management means which is configured to transmit the project file corresponding to a scene as requested from the client terminal for reproducing the scene (Page 1, Para 0011 and Para 0017; Page 7, Para 0099). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the information delivering system of **Hubrecht et al.** and **Marshall et al.** with the information delivering system of **Nikolskiy et al.** that included three-dimensional content composed of a plurality of project files and wherein the information delivering server further comprised a download management means which was configured to transmit the project file corresponding to a scene as requested from the client terminal for reproducing the scene because that would allow generating a computer model of a patient's teeth to be generated at a server; communicating the treatment information to a client workstation in a computer automated treatment plan and system; download the treatment plan at a remote workstation to view the patient's treatment plan and comment on it; the viewer would download the data files from the server and present the treatment plan graphically to a clinician (Page 1, Para 0011 and Para 0017; Page 7, Para 0099).

19.2 As per Claim 20, it is rejected based on the same reasoning as Claim 10, supra. Claim 20 is a method claim reciting the same limitations as Claim 10, as taught throughout by **Hubrecht et al., Marshall et al.** and **Nikolskiy et al.**

Conclusion

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kandasamy Thangavelu whose telephone number is 571-272-3717. The examiner can normally be reached on Monday through Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez, can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

K. Thangavelu
Art Unit 2123
April 19, 2006